**Kingston University, BSc (Hons) (top-up)**

**Coursework Coversheet**

**Draft Coursework – Subject to Moderation**

**Part 1 - To Remain with the Assignment after Marking**

|  |  |
| --- | --- |
| **Student ID:** | **Student Name:** |
| **Module Code:** | **Module Name:** |
| **Assignment number:** | **ESoft Module Leader:** |
| **Date set:** | **Date due:** |

**Guidelines for the Submission of Coursework**

1. Print this coversheet and securely attach both pages to your assignment. You can help us ensure work is marked more quickly by submitting at the specified location for your module. You are advised to keep a copy of every assignment.

2. Coursework deadlines are strictly enforced by the University.

3. You should not leave the handing in of work until the last minute. Once an assignment has been submitted it cannot be submitted again.

**Academic Misconduct**: **Plagiarism** and/or **collusion** constitute **academic misconduct** under the University's Academic Regulations. Examples of academic misconduct in coursework: making available your work to other students; presenting work produced in collaboration with other students as your own (unless an explicit assessment requirement); submitting work, taken from sources that are not properly referenced, as your own. By printing and submitting this coversheet with your coursework you are confirming that the work is your own.

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| --- | --- | --- | --- |
| |  | | --- | | ESoft Office Use Only:  Date stamp: work received | | |  | | --- | |  | |

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**Part 2 – Student Feedback**

|  |  |
| --- | --- |
| **Student ID:** | **Student Name:** |
| **Module Code:** | **Module Name:** |
| **Assignment number:** | **ESoft Module Leader:** |
| **Date set:** | **Date due:** |

|  |
| --- |
| Strengths (areas with well-developed answers) |

|  |
| --- |
| Weaknesses (areas with room for improvement) |

|  |
| --- |
| Additional Comments |

|  |  |  |
| --- | --- | --- |
|  |  |  |
| **ESoft Module Lecturer:** | **Provisional mark as %:** |  |
| **ESoft Module Marker:** | **Date marked:** |

**Mobile Application Development Coursework 1**

**Coursework1-Part B – Cross Mobile Application Development**

This individual coursework (Part B) requires developing a mobile mini application using the Flutter framework. This part contributes 15% to the total marks.

### **Coursework Overview** Students are required to design and develop a **mini mobile application** using Flutter and state management, leveraging the **OpenWeatherMap API** (<https://openweathermap.org/api>). The application should demonstrate creativity, technical depth, and strong software design practices. This mobile app must showcase at least **five core features** (e.g., location-based weather search, forecast by date, saving favorite cities, weather alerts, filtering by region, etc.) without requiring a user login system. Students are encouraged to demonstrate their skills by focusing on:

### Implementing a suitable **software architecture/design pattern** (e.g., MVVM, Clean Architecture, or layered structure).

### Applying **mobile development best practices** in coding, UI, and performance optimization.

### Integrating at least **one third-party Flutter library** for advanced functionality (e.g., charting, animations, or caching).

### Designing **minimum 5 functional screens** that demonstrate app flow and usability.

### Using **state management techniques** (e.g., Provider, Riverpod, BLoC, or GetX).

### Submitting **technical documentation, a demonstration video, and complete source code**.

#### **Part A – Software Implementation (70%)**

1. Application Architecture*(25 marks)*

* Implement feature-based folder structure
* Apply state management (Provider, Riverpod, or GetX).
* Include an architecture diagram in your documentation.

1. UI/UX Design *(15 marks)*

* User-friendly design:
* Follow Material Design guidelines.
* Use color schemes & icons to improve UX.
* Wireframes/screenshots must be included in documentation.

1. API Integration *(30 marks)*

* Support full CRUD operations.
* Provide dummy records for initial testing.

#### API Integration

#### API endpoints

#### API data parsing and models.

#### More features

#### **Part B – Documentation & Testing (30%)**

#### Technical Documentation*(20 marks)*Prepare a PDF report with:

#### **Table of Contents**

#### Overview of the Project and Available Features - Brief description of the weather app and chosen features.

#### Project Architecture/Design 2.1 Architecture/Design Pattern used (e.g., Clean, MVVM, BLoC). 2.2 Project Structure (organized by feature or layer).

#### API Integration 3.1 API endpoints 3.2 API data parsing and models. 3.3 API implementation in code (with CRUD demonstration if relevant). 3.4 Other implemented features (favorites, notifications, etc.).

#### State Management

#### Code examples.

#### Third-party Libraries

#### Libraries used (e.g., Dio, Lottie, Hive, Syncfusion).

#### Purpose and usage in the project.

#### UI/UX Design

#### Final design showcase.

#### Wireframes/prototypes.

#### Application of UI/UX best practices.

#### Testing

#### Test Cases

#### Issues/Errors and Failures in Development

#### Bugs encountered and fixes applied.

#### References(Harvard format).

* **Deliverables** *(10 marks)*
* Release APK file.
* Source code on GitHub with version control.
* Demo video (≤25 MB) showcasing app features.

### **2. Submission**

The final submission should include the demonstration video, technical documentation, source code and the app’s final release file (APK).

* **Demonstration video summation:**Students must create a demonstration video showcasing the implemented features of their application with their own voice. The video should be uploaded to the student's Google Drive and shared with the setting 'Anyone with the link.' The demonstration video link must be included in the appendix of the technical report.
* **Final release file (APK) summation:**Students must build a final release APK. This final release APK should be uploaded to the student's Google Drive and shared with the setting 'Anyone with the link.' The final release APK link must be included in the appendix of the technical report.
* **Source code summation:**

Students must create a public repository on their own GitHub (or Bitbucket, GitLab, etc.). Push the source code to this repository. Include the repository link in the appendix of the technical report.

**Submission method.**

1. Demonstration Video with audio as well (less than 25 MB)

* Student needs to explain the application while demonstrating.
* share the apk(release) file.

1. Preparing the technical Report (.pdf) and highlighting your work as well answer sheet for question A.

* Contains the activities and screenshot evidence of the application.

1. Source Code

* Using the version controllers (Git-Hub etc.) and sharing the source code.

**Document**

* Font Size - Main topic font Size 16, Subtopic font Size 14 and paragraph font size 11.
* Font family - Times New Roman.
* The following topics should include in the documentation.
* Documentation Format (PDF)

\***Constraints:**

1. Should any plagiarism be identified during the viva, the assignment will be zeroed.
2. Students are encouraged to help others and to support batch mates. However, if done so, please mention who you helped and what type of help was provided, along with their student number of the student so that the student would be excluded from plagiarism.

**3. Marking criteria**

|  |  |
| --- | --- |
| Mark | Characterized by |
| 0 | No work or work totally irrelevant |
| 1 | Work started on right lines but no result |
| 2 | Some result, with major lack and/or errors |
| 3 | Acceptable result but incomplete, or some good result with minor errors |
| 4 | Good result but can be further improved |
| 5 | Excellent result |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Item** | **Weight** | ***Mark***  ***(0 to 5)*** | ***Weight x Mark*** |
| **Software Implementation** | |  |  |  |
|  | RnD and Implemented features | 1 | 5 | 5 |
| 1 | Souse code (Structuring/Architecture and data flow) | 4 | 5 | 20 |
| 2 | UI/UX (Design and wireframe / UI/UX best practices) | 3 | 5 | 15 |
| 3 | API with CRUD operations | 5 | 5 | 25 |
| 4 | More features | 1 | 5 | 5 |
| **Documentation and Deliverables** | |  |  |  |
| 5 | Technical documentation | 4 | 5 | 20 |
| 6 | Demonstrations video and Final release file (APK) | 2 | 5 | 10 |
|  | Total |  |  | 100 |

**Level of work expected:**

This is a major piece of work, and it is expected that you will need to do some very thorough research and that ideally your research will be as up to date as possible given that this is a very rapidly moving field. Work containing vague descriptions or unsupported assertions will be penalised.

**Feedback:**

You can invite the module-staff to review your progress and provide formative-feedback.

**Academic Integrity:**

Academic integrity means demonstrating honest, moral behaviours when producing academic work. This involves acknowledging the work of others, giving appropriate credit to others where their ideas are presented as part of your work and the importance of producing work in your own voice. Contributions by artificial intelligence (AI) tools must be properly acknowledged. As part of a learning community students share ideas and develop new ones - you need to be able to interpret and present other people's ideas and combine these with your own when producing work.

**Plagiarism (including copying, self-plagiarism and collusion)**

The act of presenting the work of another person (or people) and/or content generated by artificial intelligence (AI) tools as your own without proper acknowledgement. This includes copying the work of another student or other students.

The University expects students to take responsibility for the security of their work (i.e. with written work, to ensure that other students do not get access to electronic or hard copy of the work). Failure to keep work secure may allow others to cheat, and could result in an allegation of academic misconduct for students whose work have been copied, particularly if the origin of the work is in doubt.

**Self-plagiarism**

The act of presenting part or all of your work that has been previously submitted to meet the requirements of a different assessment, except where the nature of the assessment makes this permissible.

**Collusion**

The act, by two or more students, of presenting a piece of work jointly without acknowledging the collaboration. This could include permitting or assisting another to present work that has been copied or paraphrased from your own work.

The University also defines collusion as the act of one student presenting a piece of work as their own independent work when the work was undertaken by a group. With group work, where individual members submit parts of the total assignment, each member of a group must take responsibility for checking the legitimacy of the work submitted in his/her name. If even part of the work is found to contain academic misconduct, penalties will normally be imposed on all group members equally.

**Purchasing or Commissioning**

The act of attempting to purchase or purchasing work for an assessment including, for example from the internet, or attempting to commission, or commissioning someone else to complete an assessment on your behalf.

The procedures for investigating suspected cases of academic misconduct are set out in Academic Regulations 6 Academic Integrity - Taught Courses 2023/24

**You must meet all deadlines set. Failure to do so will result in a penalty.**

Work submitted late but within a week of the deadline will be capped at 40% and receive a grade of LP (Late Pass) unless it is not of a passing standard in which case it will receive a grade of LF (Late Fail). Work submitted beyond a week of the deadline without approval will get 0% with a grade of F0. If, however, you have a serious problem, which prevents you from, meeting the deadline you may be able to negotiate an extension in advance. In the first instance you should contact the module team for advice. However any extension will need to be formally agreed by the Faculty via the Mitigating Circumstances process, your work will then be marked without penalty.